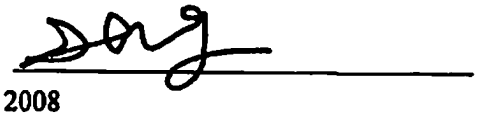
CERTIFICATE OF TRANSLATION

As a below named translator, I hereby declare that my residence and citizenship are as stated below next to my name and I hereby certify that I am conversant with both the English and Korean languages and the document enclosed herewith is a true English translation of Invention Disclosure with respect to the Korean patent application No. **2003-18869** filed on March 26, 2003 which the translation is accurate.

NAME OF THE TRANSLATOR : Seung –Ji Kim

SIGNATURE : 

Date : March 18, 2008

RESIDENCE : MIHWA BLDG., 110-2, MYONGRYUN-DONG 4-GA, CHONGRO-GU, SEOUL 110-524, KOREA

CITIZENSHIP : REPUBLIC OF KOREA

Invention Disclosure

<<Rights, which can be registered with respect to the present invention to the jobs of employees, are granted to an employees' corporation under the regulation of articles 39 and 40 of the patent law>>

The present employee invention is received by the intellectual property team of the telecommunication institute (Suwon city and Kumi city).

Title of Invention : Method of launching terminal application program on receiving data call

Name of Subject <undecided (to be filled later)> Subject code XXXXX Name of Product -

Name of Core Technique(code)

Evaluation of technical contents

Item	Evaluation Contents
Type of invention	◉ individual invention ○ industry-university cooperation ○ outside development ○ cooperative development
	[Contract Attachment]

Management	Name of File	Description of File
	[Inscription of a property right and description about compensation problem]	

Disclosed Particulars	Due date of disclosure	-	Disclosed country and organization	-	Disclosure type	-

※Identification of inventor

No	outside of the company	Name	Assigned Department	Representative	Share(%)	English name	Chinese Character name
			Resident Registration Number	Inventor's address			
1		서종원	Development 1 group(wireless)	⊙	100	SEO, Jong Won	
			711118-1030611	#301-1505, Saseum APT.. Wolgye 4-dong, Nowon-gu, Seoul, Republic of Korea			

※File of employee invention report

Name of File	Description of File

■Judgment of invention grade

Subject of Judgment		Date of Judgment	Grade	Opinion
Inventor	Jong Won SEO	December 6, 2002	A	
Chief of Inventor	Hee-Deok KIM	December 6, 2002	B	.
Patent Team		January 10, 2003	A	-
Evaluation Committee		January 23, 2003	A	-

■Dates regarding employee invention

Date of Invention Report	December 6, 2002	Approval Date of Team Leader	December 6, 2002	Receipt Date of Patent Team	December 6, 2002

■Receipt Number of Employee Invention : GK-200212-006

<table>
<tr><td colspan="3">Employee Invention Report (Invention Disclosure)
● Title of Invention
* Simple & clear title capable of expressing the content of the invention</td><td colspan="5" rowspan="3">[Points to be pre-checked]
○ prompt application is necessary under the first-to-file system
○ complete invention is necessary
- the invention must be backed up by embodiments, data, etc.
- incomplete or only desired idea is not available
○ publication before application is prohibited
- academy presentation, paper publication, sale, display, etc. are prohibited</td></tr>
<tr><td>Korean</td><td colspan="2">Method of launching terminal application program on receiving data call</td></tr>
<tr><td>English</td><td colspan="2">How to launch an application on receipt of a call</td></tr>
<tr><td colspan="3">Related prior art & prior application</td><td colspan="5">- all technologies in relation to the present invention, which have already been filed or are currently pending
- improvement application can be filed within one year from the first application data, with domestic priority claiming</td></tr>
<tr><td rowspan="8">[Technology Source] (optionally fill only corresponding blanks)</td><td rowspan="3">Similar patent or application</td><td colspan="2">Application/registration No.</td><td></td><td>Application/ registration Date</td><td></td></tr>
<tr><td colspan="2">Title of Invention</td><td colspan="3"></td></tr>
<tr><td colspan="2">Applicant</td><td colspan="3"></td></tr>
<tr><td rowspan="3">Background document or product</td><td colspan="2">Document name/product model name</td><td></td><td>Publisher/ manufacturer</td><td></td></tr>
<tr><td colspan="2">Publication/production date</td><td></td><td>Page/others</td><td></td></tr>
<tr><td rowspan="4">Prior application(s) of the inventor(s) related to the invention</td><td rowspan="2">Filed application(s)</td><td>Title of invention</td><td colspan="3"></td></tr>
<tr><td>Application no./date</td><td colspan="3">(19 ...)</td></tr>
<tr><td rowspan="2">Pending application(s)</td><td>Title of invention</td><td colspan="3"></td></tr>
<tr><td>Receipt no./date</td><td colspan="3">(19 ...)</td></tr>
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1. BACKGROUND OF INVENTION

A. FIELD OF INVENTION

Data services take a large share in IMT-2000. However, data services in a terminal are mostly implemented for the case of an outgoing data call. The present invention relates to a method of launching an appropriate data service program when a data call is received.

B. DESCRIPTION OF PRIOR ART

Most of existing data services are implemented for the case where a data call originates from a terminal, and there is no data service for an incoming data call. Only a browser can be launched through the WAP Push service. If the IMT-2000 service begins, more various data application programs, such as VOD, video communication, advertisement broadcasting, instant messaging, etc., will be used. Thus, there will be a need for a way to launch a corresponding application program when a data call is received.

C. PROBLEMS OF THE PRIOR ART & OBJECTS OF THE INVENTION

- PROBLEMS OF THE PRIOR ART

Most terminal programs are designed for an outgoing data call. There is no concept and no design for an incoming data call.

- OBJECTS OF THE INVENTION

An object of the present invention is to provide a method of launching a corresponding application program for connecting to a service required in a network when a data call is received.

2. DETAILED DESCRIPTION OF THE INVENTION

A. CONSTRUCTION OF THE INVENTION

(1) Method of informing a terminal of a required service when a data call is received.

(2) Method of launching a corresponding application program for connecting to a required service.

(3) Method of informing a calling party that there is no corresponding application program for connecting to a required service.

B. OPERATION OF THE INVENTION

A process of connecting an incoming data call to a terminal in IMT-2000 is as follows: A calling party may be a server existing in a network, or may be a terminal. If the calling party makes a data call to a corresponding called terminal, the corresponding terminal receives paging. Subsequently, a radio link through which to exchange data is established through a call processing procedure.

With regard to this, data sent by the calling party is carried by a TCP//IP packet, and is transmitted to the called terminal. Since a TCP data structure includes a port number, a corresponding application program can be identified by the port number. However, this is not true until a TCP connection is made. In a state where only a path through which to exchange data is established, data cannot be transferred to a corresponding application program because a port number is not yet exchanged between application programs.

As a solution to this, a well-known port is clarified in a server program so as to inform clients of a port number thereof, thereby allowing the clients to access the server program. However, application programs of a terminal are mostly client programs, and thus have no externally known port number.

Therefore, in such a state, the calling party does not know to which application program of the called terminal it transmits data, and a corresponding application program is not even launched yet.

To solve this, the called terminal is provided with a program launcher, and the calling party informs the program launcher of a service to be provided thereby, its port number, and so forth, by transmitting a message (program launch message) including them to the called terminal. After a traffic channel is established, the called terminal transfers an initially received message to the program launcher, and the program launcher parses the contents of the message to thereby launch a corresponding application program. The launched application program attempts to access a server, and if a connection with the server is made, provides a user with a service downloaded from the server.

When the service included in the program launch message cannot be executed by the called terminal, the program launcher transmits a service reject message including a reason for the rejection to the server. The program launcher informs the user of information on the service requested by the calling party and the rejection thereto, and then disconnects the data call.

In order to provide such a service, a program launcher must be implemented in a called terminal, and programs on a calling party must also be modified accordingly. That is, a message (program launch message) must be configured such that it can be identified as a message, the destination of which is the program launcher, when a server attempts to access the called terminal.

3. CLAIMS

○ Very important Item which determines the invention and its scope (*omissible when the description part is unnecessary)

- mention only characteristic matters which are desired to be protected by an exclusive right
- mention novel elements necessary to have the same effect as the characteristics of the invention

[Examples]

1. Superordinate Concept (Independent Claim)

- ○○ device (circuit) comprising A for performing an XXX function and B for performing a YYY function.
- ○○ method comprising an A step and a B step.

2. Subordinate Concept (Dependent Claim)

- The device (circuit) of claim 1 (citing the independent claim), wherein the detection unit (means) comprises ... for ...., and .... for .....
- The method of claim 1 (citing the independent claim), wherein the connection in step A is .....

3. Superordinate Concept (Independent Claim)

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1. Superordinate Concept

- Method of informing a terminal of a required service when a data call is received.

- Method of launching a corresponding application program for connecting to a required service.

- Method of informing a calling party that there is no corresponding application program for connecting to a required service.

4. Drawings

1. A view which can best express the characteristics of the invention shall be selected as a representative drawing, and the same reference numerals as those in the detailed description of the invention shall be marked in the drawings 2. Brief description of the drawings shall be attached under the drawings (* omissible when the description is unnecessary)

A. DRAWINGS OF THE PRIOR ART

None

B. DRAWINGS OF THE INVENTION

FIG. 1 Structures of Calling and Called Parties

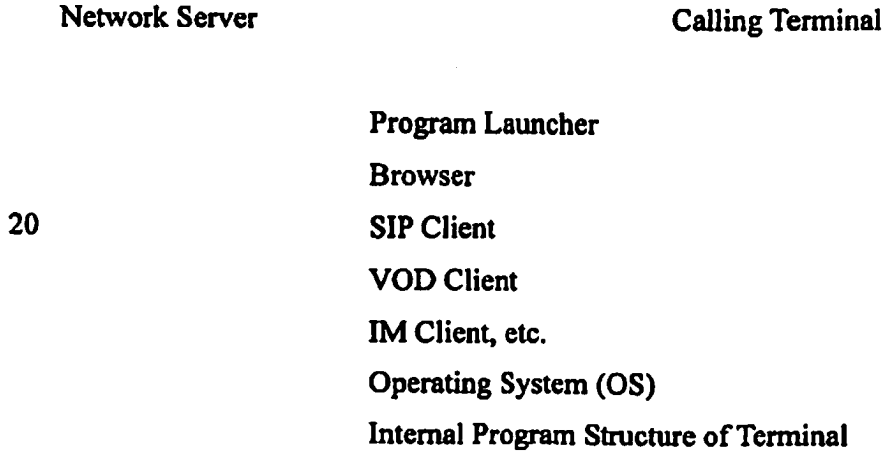

FIG. 2 Structure of Called Terminal

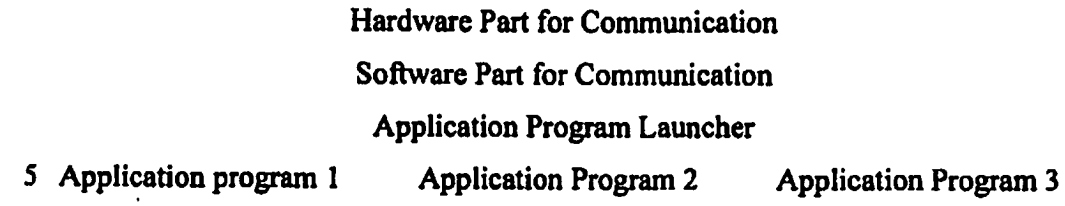

FIG. 3 Processing Procedure When Data is Received

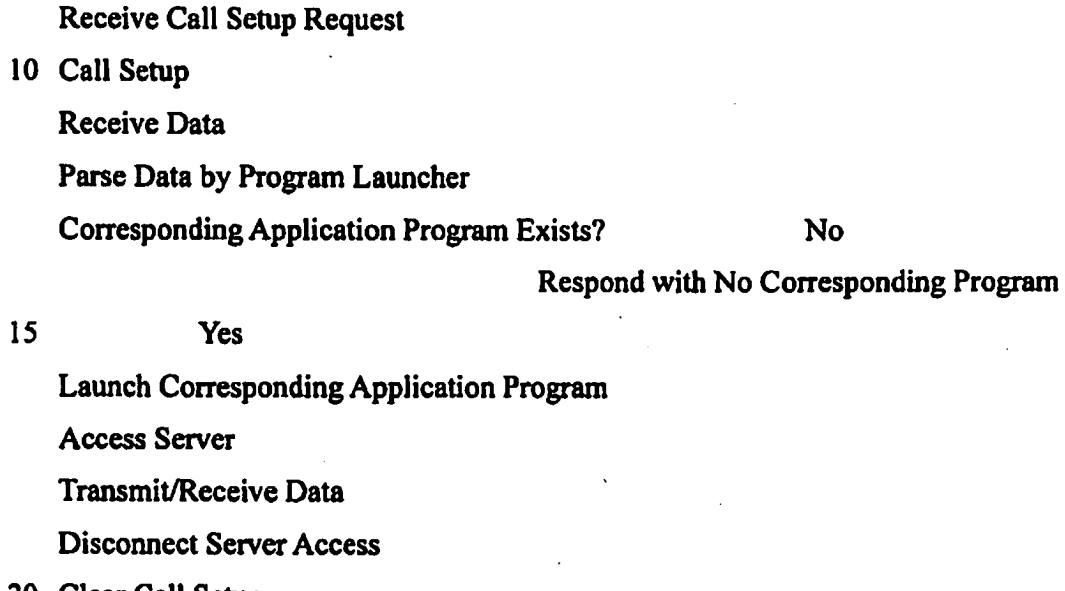

FIG. 4 Concept of Initially Received Data

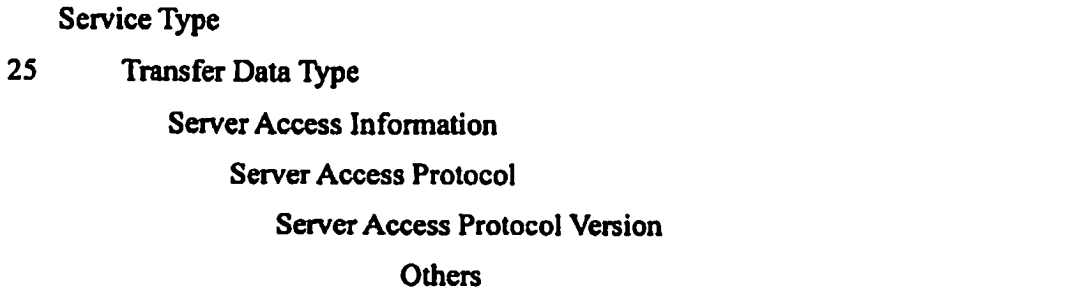

FIG. 5 Example of Server-to-Terminal Message Exchange

Generate Data in Advertising Server

Transmit Connection Request to Launching Server

Receive Connection Request by Launching Server

Corresponding Terminal Can Receive Data? No

Yes Transmit Response Indicating Inability to Receive Data to Advertising Server

Request Call Setup

Call Setup

Transmit Launch Message

Respond to Launch Message by Terminal

Launch Corresponding Application Program

Access Advertising Server

Receive and Reproduce Advertising Data

FIG. 6 Example of Terminal-to-Server-to-Terminal Message Exchange

Generate Data in Terminal A

Call Setup

Access Messenger Server and Request Terminal B to Transmit Data

Transmit Connection Request to Launching Server by Messenger Server

Receive Connection Request by Launching Server

Corresponding Terminal Can Receive Data? No

Yes Transmit Response Indicating Inability to Receive Data to Messenger Server

Transmit Call Setup Request to Terminal B

Call Setup

Receive Launch Message by Terminal B

Transmit Response to Launch Message from Terminal B to Launching Server

Launch Corresponding Application Program

Access Messenger Server by Terminal B

Exchange Message between Terminals A and B

FIG. 7 Example of Terminal-to-Terminal Message Exchange

Generate Data in Terminal A

Call Setup

Transmit Connection Request to Launching Server

Receive Connection Request by Launching Server

Corresponding Terminal Can Receive Data? No

Yes Transmit Response Indicating Inability to Receive Data to Terminal A

Transmit Call Setup Request to Terminal B

Call Setup (between Terminals A and B)

Receive Launch Message by Terminal B

Transmit Response to Launch Message from Terminal B to Launching Server

Launch Corresponding Application Program

Receive Message from Terminal A

Respond to Message by Terminal B